The Formation Conditions of Violuric Acid and of the   SOV/156-58-2-35/48
Violurates When Nitrite Acts Upon Barbituric Acid

acid concentrations below 0,01 mol/1 and at nitrite con-
centrations of 0,01 - 0,001 mol/1. It was found that the
color intensity of the produced violurate depends on the
active reaction of the solution. The color is, however, in
the case of all pH-values due to the formation of the
sodium violurate with a λ_{max} 520 mμ only. A color maximum

is observed at pH 5,0 - 5,2. The color of the produced
violurate vanishes gradually with the duration of interaction
in the case of the optimum pH-value as well as in the case
of lower values (5,0 - 4,0). In contrast to this, the
color intensity rises in the case of higher pH-values
(5,0 - 5,6) with the prolongation of the reaction duration.
In the case of pH 4.0 - 5,0 the violurate is produced more
quickly, this process reaching its maximum within the
first 10 minutes (at 100°). The color vanishes later owing
to the decomposition of the violurate. In contrast to this
the violurate formation is apparently inhibited in the
case of higher pH-values (5,0 - 6,0). It does not reach a
maximum even after 1 hour (at 100°). The color intensity

Card 2/4

The Formation Conditions of Violuric Acid and of the   SOV/156-58-2-35/48
Violurates When Nitrite Acts Upon Barbituric Acid

in the case of pH 4,0 -- 5,0 is due to the varying degree
of the colored salt (violurate). The formation of the violuric
acid proceeds with great velocity at a pH $<$ 5,0 - 5,2 and
is abruptly inhibited when the optimum pH-value is surpassed.
There are 3 figures and 1 reference.

ASSOCIATION: Kafedra organicheskoy khimii 2-go Moskovskogo gosudarstvennogo
meditsinskogo instituta im.N.I.Pirogova (Chair   of Organic
Chemistry of the Second Moscow State Institute of Medicine
imeni N.I.Pirogov)

SUBMITTED: October 28, 1957

Card 3/4

The Formation Conditions of Violuric Acid and of the   SOV/156-58-2-35/48
Violurates When Nitrite Acts Upon Barbituric Acid

Card 4/4

AUTHORS: Krylov, V.P., Drozdev, N.S.   SOV/63-3-6-41/43

TITLE: The Application of Barbituric and 2-Thiobarbituric Acids for
              the Quantitative Determination of Nitrit (O primenenii bar-
              biturovoy i 2-tiobarbiturovoy kislot dlya kolichestvennogo
              opredeleniya nitrita)

PERL. YEAR: Zhurnal naucc i prungshlennost', 1956, Vol III, Nr 6,
              pp 636-39 (USSR)

ABSTRACT: The color of 2-thioviolurate, which develops in a solution
              of pH=4.7 and a 2 - 6 times excess of 2-thiobarbituric acid,
              may be used for the photocolorimetric determination of NO_2
              with an error of $\pm 5\%$. The barbituric acid may be used for
              the determination of nitrite, because there is no linear de-
              pendence between the observed color and the concentration.
              There are 3 graphs and 6 references, 2 of which are Soviet,
              3 German and 1 Indian.

ASSOCIATION: 2-y Moskovskiy gosudarstvennyy meditsinskiy institut imeni
              N.I. Pirogova (Second Moscow State Medical Institute imeni
              N.I. Pirogov)

SUBMITTED: May 21, 1956

Card 1/1

5.3610

77288
SOV/63-4-6-22/37

AUTHORS: Drozdov, N. S., Krylov, V. P.

TITLE: Brief Communication. Colorimetric Determination of Barbituric and 2-Thiobarbituric Acids

PERIODICAL: Khimicheskaya nauka i promyshlennost', 1959, Vol 4, Nr 6, pp 798-799 (USSR)

ABSTRACT: Nitrous acid with barbituric (I) and 2-thiobarbituric (II) acids forms colored salts of 5-isonitrosobarbituric and 5-isonitroso-2-thiobarbituric acids, respectively. The quantitative photometric determination of (I) and (II), based on the above reaction was made at pH $\approx$ 5.0-5.2 for Na and K violurates, and pH $\approx$ 4.7-4.9 for Na and K 2-thioviolurates. For stabilization of pH of the solution, an acetate or phosphato-citrate buffer mixture was used. For a rapid color development it is sufficient to heat the reaction mixture to 100° for 15 minutes and cool it to 20° with ice water. The error of the determination is not over $\pm 5\%$. The above

Card 1/2

Brief Communication. Colorimetric
Determination of Barbituric and
2-Thiobarbituric Acids

77288
SOV/63-4-6-22/37

determination can be made on 10^{-4} mole/liter concentration of (I) and (II). The presence of cations of alkali and alkali-earth metals does not interfere with the determination. Cu and Fe cations interfere with the accuracy of the determination. There is 1 figure; and 6 references, 2 Soviet, 3 U.S., 1 U.K. The U.S. and U.K. references are: Koppani, J. Am. Pharm. Assoc., 23, 1074 (1934); Mattson, Holt, J. Pharmacol., 59, 379 (1937); Christensen, J. Biol. Chem., 160, 425 (1945); Mangouri, Quart, J. Pharm., 20, 109 (1947).

ASSOCIATION: Second Moscow State Medical Institute imeni N. I. Pirogov (2-y Moskovskiy gosudarstvennyy meditsinskiy institut imeni N. I. Pirogova)

SUBMITTED: April 29, 1959

Card 2/2

DROZDOV, N.S.; KRYLOV, V.P.

Reaction of 2-thiobarbituric acid with sodium nitrite. Izv.
vys.ucheb.zav.;khim. i khim.tekh. 3 no.3:476-479 '60. (MIRA 14:9)

1. 2-oy Moskovskiy gosudarstvennyy meditsinskiy institut imeni
N.I. Pirogova, kafedra organicheskoy khimii.
        (Barbituric acid)   (Sodium nitrite)

DROZDOV, N.S.; KRYLOV, V.P.

Photometric determination of barbituric and 2-thiobarbituric acids.
^{Z}hur.anal.khim. 15 no.2:248-249 Mr-Ap '60.   (MIRA 13:7)

1. 2-y Moskovskiy gosudarstvennyy meditsinskiy institut im. N.I.
Pirogova.
                    (Barbituric acid)

DZROZDOV, N.S.; KRYLOV, V.P.

Synthesis, structure, and coloration of salts of violuric and
thioviolurio acid. Dokl. AN SSSR 135 no.5:1135-1138 D '60.
(MIRA 13:12)

1. 2-y Moskovskiy gosudarstvennyy meditsinskiy institut im.N.I.
Pirogova.
(Violuric acid)

KRYLOV, V. P., Cand. Chem. Sci.   (diss) "On Some Reactions of
Barbituric And 2-Thio-barbituric Acids and their 5-Iso-Nitro-
Derivatives." Moscow, 1961, 15 pp   (Moscow Chem-Engr. Instit.)
200 copies (KL Supp 12-61, 256).

KRYLOV, V. .., DROZDOV, N. S. (USSR)

"Interaction of 2-Thiobarbituric and Barbituric Acids
with the products of Biogenic Oxidation of Lipids."

Report presented at the 5th International Biochemistry Congress,
Moscow, 10-16 August 1961

DROZDOV, N.S.; KRYLOV, V.P. (Moscow)

Determination of the dissociation constants of weak acids.
Zhur.fiz.khim. 35 no.11:2557-2560 N '61.   (MIRA 14:12)

1. Kafedra organicheskoy i fizicheskoy khimii 2-go Moskovskogo
meditsinskogo instituta imeni N.I.Pirogova.
                        (Acids)
                        (Dissociation)

DROZDOV, N.S. [deceased]; KRYLOV, V.P.

Use of 2-thiobarbituric and barbituric acids for the photometric control of autoxidation processes. Zav.lab. 29 no.11:1308-1309 '63. (MIRA 16:12)

1. Vsesoyuznyy zaochnyy politekhnicheskiy institut.

AREF'YEV, T.I., kand. ekon. nauk; BRASLAVETS, M.Ye., prof,, doktor
ekon. nauk; BROZGUL', M.M.; VLASOV, N.S., prof., doktor
ekon. nauk; DUBROVA, P.F., doktor ekon. nauk; YESAULOV, P.A.,
kand. sel'khoz. nauk; ZAL'TSMAN, L.M., prof., doktor sel'-
khoz. nauk;　KAL'M, P.A., dotsent, kandidat sel'sko-
khoz. nauk; KOSTSELETSKIY, N.A., kand. ekon. nauk; KRYLOV,
V.S., kand. sel'khoz. nauk; LIBKIND, A.S., dots., kand. ekon.
nauk; MAKAROV, N.P., prof., doktor ekon. nauk; OGLOBLIN, Ye.S.,
kand. sel'khoz. nauk; POLOVENKO, S.I.,kand. ekon. nauk;　POPOV,
S.A., dots., kand. ekon.nauk; SAPIL'NIKOV, N.G., doktor ekon.
nauk; TISHCHENKO, G.A., prof., kand. ekon. nauk; TYUTIN, V.A.,
prof., doktor ekon. nauk; YANYUSHKIN, M.F., kand. ekon. nauk;
PYLAYEVA, A.P., red.; FREYDMAN, S.M., red.; SOKOLOVA, N.N.,
tekhn. red.

[Organization of socialist agricultural enterprises] Organiza-
tsiia sotsialisticheskikh sel'skokhoziaistvennykh predpriiatii;
kurs lektsii. Moskva, Sel'khozizdat, 1963.　662 p.
(MIRA 16:8)

1. Zaveduyushchiy otdelom ekonomiki Vsesoyuznogo nauchno-
issledovatel'skogo instituta sakharnoy svekly (for Aref'yev).
2. Odesskiy sel'skokhozyaystvennyy institut (for Braslavets).
(Continued on next card)

AREF'YEV, T.I.— (continued). Sere

3. Moskovskaya sel'skokhozyaystvennaya akademiya im. K.A.Ti-miryazeva (for Vlasov). 4. Zaveduyushchiy otdelom ekonomiki i organizatsii Nauchno-issledovatel'skogo instituta sadovodstva im. I.V.Michurina (for Dubrova). 5. Moskovskiy Gosudarstvennyy universitet im. M.V.Lomonosova (for Zal'tsman, Polovenko). 6. Zaveduyushchiy kafedroy organizatsii sel'skokhozyaystvennogo proizvodstva Leningradskogo sel'skokhozyaystvennogo instituta (for Kal'm). 7. Zaveduyushchiy otdelom ekonomiki Nauchno-issledovatel'skogo instituta ovoshchnogo khozyaystva (for Kostseletskiy). 8. Vsesoyuznyy nauchno-issledovatel'skiy institut ptitsevodstva (for Krylov). 9. Moskovskiy ekonomiko-statisticheskiy institut (for Libkind). 10. Vsesoyuznyy sel'skokhozyaystvenniy institut zaochnogo obrazovaniya (for Makarov). 11. Zaveduyushchiy otdelom ekonomiki Krasnodarskogo nauchno-issledovatel'skogo instituta sel'skogo khozyaystva (for Ogloblin). 12. Kafedra organizatsii sel'skokhozyaystvennogo proizvodstva Leningradskogo sel'skokhozyaystvennogo instituta (for Popov). 13. Zaveduyushchiy kafedroy Sovetskoy ekonomiki Vysshey partiynoy shkoly (for Sapil'nikov). 14. Voronezhskiy sel'skokhozyaystvennyy institut (for Tishchenko). 15. Leningradskiy sel'skokhozyaystvennyy institut (for Tyutin). 16. Direktor Severo-Kavkazskogo filiala Vsesoyuznogo nauchno-issledovatel'skogo instituta ekonomiki sel'skogo khozyaystva (for Yanyushkin).

(Agriculture—Economic aspects)

KRYLOV, V.S.

Problem of repair of the aorta with a one-piece plastic insert
[with summary in English]. Eksper.khir. 1 no.2:43-50 Mr-Ap'56
(MIRA 11:10)

1. Iz fakul'tetskoy khirurgicheskoy kliniki (dir. deystvitel'nyy chlen
AMN SSSR prof. A.N. Bakulev) II Moskovskogo gosudarstvennogo meditsinsko-
go instituta imeni I.V. Stalina i Sverdlovskogo instituta vosstanovitel'-
noy khirurgii, travmatologii i ortopedii (dir. - chlen-korrespondent
AMN SSSR prof. F.R. Bogdanov).
          (AORTA, surgery,
                exper. allplasty with acrylic resins (Rus))
          (ACRYLIC RESINS,
                aortoplasty in animals (Rus))

KRYLOV, V. S., VENEDIKTOV, D. D., and PETROVSKIY, B. V., (Prof.) -- Moscow

"Restorative Surgery in Occlusion of Large Arteries."

Report submitted for the 27th Congress of Surgeons of the USSR, Moscow, 23-28 May 1960.

PETROVSKIY, B.V.; KRYLOV, V.S.; VENEDÍKTOV, D.D.

Surgical treatment of arteriosclerotic occulsions of the large
vessels. Khirurgiia 36 no. 5:10-17 My '60.   (MIRA 14:1)
                       (ARTERIOSCLEROSIS)

KRYLOV, V. S., Doc Med Sci -- "~~Continuous roundabout~~ *Permanent bypass* shunt-ing and prosthesis in the surgery of ~~blood~~ vessels. (Ex-perimental clinical observation)." Mos, 1961. (Min of Health USSR. Central Inst, Advanced Med) (KL, 3-61, 257)

- 413 -

PETROVSKIY, B.V., prof.; MILONOV, O.B., kand.med.nauk; KRYLOV, V.S.,
kand.med.nauk

Plastic prostheses in the surgical treatment of aneurysm of
the peripheral vessels. Khirurgiia 37 no.5:7-12 My '61.
                                                    (MIRA 14:5)

1. Iz gospital'noy khirurgicheskoy kliniki (zav. - deystvitel'-
nyy chlen AMN SSSR prof. B.V. Petrovskiy) I Moskovskogo ordena
Lenina meditsinskogo instituta imeni I.M. Sechenova.
        (BLOOD VESSELS--SURGERY)   (ANEURYSMS)

PETROVSKIY, B.V., prof.; NATSVLISHVILI, G.A., kand.med.nauk; KRYLOV, V.S., kand.med.nauk (Moskva)

Significance of contrast methods in the diagnosis and treatment of sclerotic lesions of the aorta and great vessels. Klin.med. 39 no.2:29-35 F '61.   (MIRA 14:3)

1. Iz gospital'noy khirurgicheskoy kliniki (zav. - deystvitel'-nyy chlen AMN SSSR prof. B.V. Petrovskiy) I Moskovskogo ordena Lenina meditsinskogo instituta imeni I.M. Sechenova (dir. chlen-korrespondent AMN SSSR prof. V.V. Kovanov).
            (ARTERIOSCLEROSIS)   (ANGIOGRAPHY)

PETROVSKIY, B. V., professor; KRYLOV, V. S., starshiy nauchnyy sotrudnik;
    KROTOVSKIY, G. S. (Moskva, V-330, Universitetskiy pr., korpus 4,
    kv. 139)

    Surgical treatment of "pulseless disease" (Takayasua's syndrome).
    Vest. khir. no.4:28-35 '62.   (MIRA 15:4)

    1. Iz gospital'noy khirurgicheskoy kliniki (zav. - prof. B. V.
    Petrovskiy) 1-go Moskovskogo ordena Lenina meditsinskogo insti-
    tuta im. I. M. Sechenova.

                        (PULSE)

KRYLOV, V.S.; YARMOLINSKIY, I.S.

Device for the introduction of vascular protheses in surgical
formation of a permanent collateral shunt from the femoral into
the popliteal artery. Eksper.   khir. i anest. 7 no.5:49-50
S-O '62.

(MIRA 17:10)

1. Iz gospital'noy khirurgicheskoy kliniki I Moskovskogo
ordena Lenina meditsinskogo instituta imeni Sechenova.

PETROVSKIY, B.V., prof.; KRYLOV, V.S., doktor med. nauk; ZARETSKIY, V.V., kand. med. nauk; RABKIN, I.Ye., kand. med. nauk

Abdominal aortography. Vest. khir. 89 no.10:3-12 O '62.

(MIRA 17:10)

1. Iz gospital'noy khirurgicheskoy kliniki (zav. - prof. B.V. Petrovskiy) 1-go Moskovskogo ordena Lenina meditsinskogo instituta. 2. Deystvitel'nyy chlen AMN SSSR (for Petrovskiy). Adres avtorov: Moskva, G-48, Pirogovskaya d.2/6 1-y Moskovskiy meditsinskiy institut.

MEKHTIYEV, M.M.; ARABIDZE, G.G.; KRYLOV, V.S.

Methodology of studying the pathology of the renal arteries
in arterial hypertension. Ter. arkh. 35 no.4:40-44 Ap'63
(MIRA 17:1)

1. Iz gospital'noy khirurgicheskoy kliniki (dir. deystvi-
tel'nyy chlen AMN SSSR prof. B.V. Petrovskiy) I Moskovskogo
ordena Lenina meditsinskogo instituta imeni I.M.Sechenova
i Instituta terapii (dir. - deystvitel'nyy chlen AMN SSSR
prof. A.L.Myasnikov) AMN SSSR.

MEKHTIYEV, M.M.; KRYLOV, V.S.; ARABIDZE, G.G.; BELICHENKO, I.A.

Diagnosis of stenosing lesions of the renal artery. Vest. khir. no.7:
22-24 Jl '64.   (MIRA 18:4)

1. Iz gospital'noy khirurgicheskoy kliniki (zav. - prof. B.V.Petrovskiy)
1-go Moskovskogo ordena Lenina meditsinskogo instituta imeni Sechenova.
Adres avtora; Moskva, B.Pirogovskaya ul., d.2/6, gospital'naya khirurgi-
cheskaya klinika.

MEKHTIYEV, M.M.; REVZIS, M.G.; KRYLOV, V.S.

Vasorenal hypertension induced by fibromuscular hyperplasia
of the renal artery. Azerb. med. zhur. 41 no. 10:60-64 O '64

(MIRA 19:1)

1. Iz nauchno-issledovatel'skogo instituta klinicheskoy i eks-
perimental'noy khirurgii i gospital'noy khirurgicheskoy kliniki
(direktor - deys'vitel'nyy chlen AMN SSSR B.V. Petrovskiy)
I Moskovskogo ordena Lenina meditsinskogo instituta imeni
Sechenova.

BELICHENKO, I.A.; KRYLOV, V.S.; KROTOVSKIY, G.S.; ABUGOV, A.M.

Angiography in lesions of the branches of the arch of the aorta. Vest. rent. i rad. 40 no.5:12-17 S-O '65.

(MIRA 18:12)

1. Nauchno-issledovatel'skiy institut klinicheskoy i eksperimental'noy khirurgii Ministerstva zdravookhraneniya RSFSR, Moskva.

KALASHNIKOV,Ya.I.; KRYLOV,V.S.; MAKOGON,L.A.; SAMOLETOV,A.I.; NIKULITSKIY, I.V.

The introduction of an intensive poultry breeding system. Mias. ind. SSSR 26 no.3:26-29 '55.   (MIRA 8:9)

1. Zamestitel' ministra promyshlennosti myasnykh i molochnykh produktov RSFSR (for Kalashnikov). 2. Tekhnoruk Kuntsevskoy ptitsefabriki (for Krylov). 3. Tekhnoruk Glebovskoy ptitse-fabriki (for Makogon). 4. Tekhnoruk Tomilinskoy ptitsefabriki (for Samoletov). 5. Direktor Brattsevskoy ptitsefabriki (for Nikulitskiy)
                    (Poultry industry)

KRYLOV, Vasiliy Sergeyevich, kandidat sel'skokhozyaystvennykh nauk;
VASIL'YEVA, G.N., redaktor; CHEBYSHEVA, Ye.A., tekhnicheskiy redaktor

[Production processes in poultry plants] Protsessy proizvodstva na
ptitsefabrikakh. Moskva, Pishchepromizdat, 1956. 161 p. (MLRA 10:4)
(Poultry plants)

COU...
CATEGORY : Farm Animals.
Poultry.
ABS. JOUR. : RZhBiol., No. 6, 1959, No: 25928

AUTHOR : Tret'yakov, N. P.; Krylov, V. S.
INST. : All-Union Scientific Research Institute of*
TITLE : New Achievements Pertaining to the Tempera-
ture Regimen in the Raising of Pullets on
Farms.

ORIG. PUB. : Tr. Vses. n.-i. in-ta ptitsevodstva, 1958, 25,
144-156

ABSTRACT : In the course of 4 years experiments were car-
ried out pertaining to the raising of pullets
in winter at low temperatures and applying
darkening procedures periodically. It was pro-
ven that at 10-15° [C] pullets grow normally
and develop well. Within the course of 4
months of raising, the pullets' live weight
was 6.8 percent, the weight of their hearts
54.8 percent, their livers 46.4 percent, their
lungs 22.8 percent, their gas metabolism 17.3-
25.2 percent higher, their average egg produc-

Card: 1/3
*Poultry Farming.

COUNTRY : USSR

ABS. JOUR. : RZhBiol., No. 1959, No.

AUTHOR :
INST. :
TITLE :

ORIG. PUB. :

ABSTRACT : tion was 17.3 percent, the weight of their
eggs 1.4 g higher than in pullets raised at
high temperatures. The combination of lowered
temperatures and periodic sleep in darkened
premises increased weight gains by 15.9 per-
cent and egg production by 32.4 percent, acce-
lerated maturity by 8 days. By raising pullets
in winter in field henhouses at low temperatu-
res, it was possible to increase the duration
of their being kept in the field to 9-10

CARD: 2/3

68

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COUNTRY      :  USSR
CATEGORY     :

ABS. JOUR.   :  RZhBiol., No.     1959, No.

AUTHOR       :
INST.        :
TITLE        :


ORIG. PUB.   :

ABSTRACT     :  months and to raise egg and meat production
                by 25-30 percent. -- M. F. Demina




Card:        3/3
```

BABIY, L.T., kand. sel'khoz. nauk; KRYLOV, V.S., kand. sel'khoz.
nauk; KRIKUN, A.A., Geroy Sotsialisticheskogo Truda,
kand. sel'khoz. nauk; STOLLYAR, T.A., kand. sel'khoz.
nauk; KARYUKINA, K.I., kand. sel'khoz. nauk; PLAUNOV,
P.A., kand. ekon. nauk; IVANOVA, A., red.; SERGEYEVA, V.,
red.

[The economics and organization of poultry raising] Eko-
nomika i organizatsiia ptitsevodstva. Moskva, Izd-vo
"Kolos," 1964. 357 p.   (MIRA 18:2)

S/020/60/135/006/026/037
B004/B056

26.1620

AUTHORS: Levich, V. G., Corresponding Member AS USSR, Kir'yanov, V.A.,
and Krylov, V. S.

TITLE: Effects of the Discrete Nature of the Charge and Properties
of the Double Layer on the Metal-Charge Interface (Taking
Account of the Discrete Structure of the Charge of
Specifically Adsorbed Layers of Ions)

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 135, No. 6,
pp. 1425 - 1428

TEXT: From various papers by other research workers the authors conclude
that the model of an electric double layer with uniformly "smeared out"
charge does not correspond to the experimental results. In the present
paper, they give a report on a quantitative investigation cf the effects
of discrete charges of the electric double layer on the metal - solution
interface. The following equations are written: for the potential jump in
the layer of adsorbed anions at the point of the electrocapillary maximum:
$\delta\psi_a = \psi_0 = -4\pi\sigma_\Gamma/D$ (5), and in the case of a charged interface as a result

Card 1/3

87410

Effects of the Discrete Nature of the Charge   S/020/60/135/006/026/037
and Properties of the Double Layer on the   B004/B056
Metal-Charge Interface (Taking Account of the Discrete Structure of the
Charge of Specifically Adsorbed Layers of Ions)

of the charge q of the metal: $\delta\psi = \psi_0 - \delta\psi_a + \delta\psi_q$; $\delta\psi_q = -4\pi q(\beta+\gamma)/D$ (6).
σ denotes the average charge in the adsorbed layer; D is the dielectric
constant of the internal region; β is the minimum distance between metal
and anion, and $\beta+\gamma$ is that between metal and cation. For the micro-
potential of the point charges the following relation is obtained:

$\psi^A = \psi_{is} + [\gamma/(\beta+\gamma)](\delta\psi_a + \delta\psi_q)$ (10), where $\psi_{is} \simeq (e/D\gamma)\ln 2$. Provided the
surface of the electrode is not too largely occupied, equation (10)
agrees well with experimental data. For the dependence of the potential
jump $\delta\psi_a$ on the concentration and activity a_+ of the anions,

$\delta(\delta\psi_a)/\delta\ln a_+ = (RT/F\delta\psi_a) - [\delta\psi^A/\delta(\delta\psi_a)]^{-1}RT/F$ (12) is found. An estimate
of the values of β and γ from the data on ionic radii, and a calculation
from equation (12) gave good agreement with the experimental data on the
mercury - solution interface. The authors thank A. N. Frumkin for a
discussion. There are 13 references: 7 Soviet, 3 US, 3 British, and

Card 2/3

87410

Effects of the Discrete Nature of the Charge   S/020/60/135/006/026/037
and Properties of the Double Layer on the   B004/B056
Metal-Charge Interface (Taking Account of the Discrete Structure of the
Charge of Specifically Adsorbed Layers of Ions)

1 German.

ASSOCIATION: Institut elektrokhimii Akademii nauk SSSR (Institute of
             Electrochemistry of the Academy of Sciences USSR)

SUBMITTED: September 26, 1960

Card 3/3

GORRANEV, A.I.; KESSLER, Yu.M.; KRYLOV, V.V.

Effect of the structure of strong electrolyte solutions on thermo-
dynamic properties. Zhur.strukt.khim. 2 no.3:260-267 My-Je '61.
(MIRA 15:1)

1. Institut elektrokhimii AN SSSR.
   (Electrolyte solutions) (Chemistry, Physical and theoretical)

KRYLOV, V. S

24.3950

34429
S/185/61/006/006/006/030
D299/D304

AUTHORS: Harber, R.I., and Krylov, V.S.

TITLE: Spectral distribution of optical density of plastically deformed rock-salt crystals

PERIODICAL: Ukrayins'kyy fizychnyy zhurnal, v. 6, no. 6, 1961, 755 – 757

TEXT: The dependence of the intensity of light scattering on wavelength in plastically deformed crystals can be determined by optical-density measurements; thereby the spectrometer $C\phi$ -4 (SF-4) was used. The natural rock-salt crystals were annealed at 650 – 700°C and tempered. The optical-density distribution was measured on specimens with a small amount of impurities. Four specimens were measured simultaneously. One of the specimens (which had highest transmittance), was selected as a standard and not subjected to deformation, whereas the other 3 specimens were plastically deformed. Then the optical density was measured with respect to the standard crystal. The results of one of the measurement cycles are shown in a

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Spectral distribution of optical ...   S/185/61/006/006/006/030
D299/D304

figure, where the values of lgD + C (D being the optical density and C -- an arbitrary constant) are plotted on the ordinate, and lg λ (λ being the wavelength of the incident light) is plotted on the abscissa. The investigations were carried out for the spectral region 3800 - 6000 Å. The graphs shown are typical for the investigated NaCl crystals. The slope of the straight line $\partial(\lg D)/\partial(\lg \lambda)$ is greater for the deformed crystals, and depends on the size of the scattering particles (inhomogeneities). The increase in the slope is proof of diminishing size of the mosaic blocks. In real crystals, although they were especially selected, and annealed and studied under the same conditions, the development of plastic deformation is not entirely similar; thus, in 2 of the investigated specimens, the slope changed at a stress value of 150 g/mm^2 approximately, whereas in the third specimen -- at 350 g/mm^2 only. Working formulas for a quantitative estimate of the size of the scatterers and their concentration, as a function of optical density, are not available as yet. It is emphasized that the change in the slope starts only at deformation stresses which correspond to the appearance of diffuse scattering (Tyndall's cone) inside the crystal. The

Card 2/3

Spectral distribution of optical ...   S/185/61/006/006/006/030
                                            D299/D304

conducted measurements show that it is possible to study the sub-
microstructure of transparent solids in the early stages of plastic
deformation. There are 1 figure and 5 references: 3 Soviet-bloc and
2 non-Soviet-bloc. The references to the English-language publica-
tions read as follows: S.P.F. Humphrys-Owen, Proc. Phys. Soc., B68,
no. 6, 325, 1955; R. Fürth, Phil. Mag., 40, 1227, 1949.

ASSOCIATION: Umans'kyy pedahohichnyy instytut (Uman Pedagogical   X
             Institute)

Card 3/3

LEVICH, V.G.; KRYLOV, V.S.

Theory of the double electric layer in concentrated solutions.
Dokl. AN SSSR 141 no.6:1403-1405 D '61.   (MIRA 14:12)

1. Institut elektrokhimii Akademii nauk SSSR. 2. Chlen-korrespon-
dent AN SSSR (for Levich).
                              (Electrolyte solutions)

KRYLOV, V.S.

Distribution of the potential and intensity of an electric field in the dense portion of a double electric layer. Dokl.AN SSSR 114 no.1:155-158 My '62.

(MIRA 15:5)

1. Institut elektrokhimii AN SSSR. Predstavleno akademikom A.N.Frumkinym.

(Systems (Chemistry))   (Electric fields)

LEVICH, V.G.; KRYLOV, V.S.

Adsorption isotherm in a discrete double electric layer model.
Dokl. AN SSSR 142 no.1:123-126 Ja '62.   (MIRA 14:12)

1. Institut elektrokhimii AN SSSR. 2. Chlen-korrespondent
AN SSSR (for Levich).

(Adsorption)

KRYLOV, V. S.

"Theory of the Electric Double Layer with a Discrete Structure in the Presence of Specifically Adsorbed Charged Particles."

Report presented at the 14th meeting CITCE, Intl. Comm. of Electrochemical Thermodynamics and Kinetics, Moscow, 19-25 Aug 63.

Institute of Electrochemistry, Academy of Sciences of USSR, Moscow

KRYLOV, V.S.; LEVICH, V.G.

Theory of the double electrical layer in concentrated solutions.
Part 1. Zhur.fiz.khim. 37 no.1:106-114 Ja '63.   (MIRA 17:3)

1. Institut elektrokhimii AN SSSR.

KRYLOV, V.S.; LEVICH, V.G.

Theory of electrical double layer in concentrated solutions. Part 2.
Zhur.fiz.khim. 37 no.10:2273-2277 O '63.   (MIRA 17:2)

LEVICH, V.G.; KIR'YANOV, V.A.; KRYLOV, V.S.

Properties of the double layer and the characteristic of the electrostatic adsorption of ions. Dokl. AN SSSR 155 no. 3: 662-665 Mr '64.

(MIRA 17:5)

1. Chlen-korrospondent AN SSSR (for Levich).

LEVICH, V.G.; KRYLOV, V.S.; VOROTILIN, V.P.

Theory of unsteady diffusion from a moving drop. Dokl. AN SSSR
161 no.3:648-651 Mr '65.

(MIRA 18:4)

1. Institut elektrokhimii AN SSSR. 2. Chlen-korrespondent AN SSSR
(for Levich).

LEVICH, V.G.; KRYLOV, V.S.; VOROTILIN, V.P.

Theory of extraction from a falling drop. Dokl. AN SSSR 160 no.6:
1358-1360 F '65.
(MIRA 18:2)

1. Institut elektrokhimii AN SSSR. 2. Chlen-korrespondent AN SSSR
(for Levich).

KRYLOV, V.S.; LEVICH, V.G.

Effect of the discreteness of adsorbed charge of interphase surface tension. Dokl. AN SSSR 159 no.2:409-412 N '64.   (MIRA 17:12)

1. Institut elektrokhimii AN SSSR. 2. Chlen-korrespondent AN SSSR (for Levich).

VOROTILIN, V.P.; KRYLOV, V.S.; LEVICH, V.G.   (Moskva)

Theory of the extraction of matter from a falling droplet.
Prikl. mat. i mekh. 29 no.2:343-350 Mr-Ap '65.   (MIRA 18:6)

PETROVSKIY, B.V.; KRYLOV, V.S.; MEKHTIYEV, M.M.

Diagnosis and surgical treatment of renovascular hypertension.
Khirurgiia 40 no.11:3-9 N '65.
(MIRA 18:7)

1. Nauchno-issledovatel'skiy institut klinicheskoy i eksperimental'noy
khirurgii Ministerstva zdravookhraneniya RSFSR i gospital'naya khirurgi-
cheskaya klinika (dir. - prof. B.V.Petrovskiy) I Moskovskogo ordena
Lenina meditsinskogo instituta imeni Sechenova.

KRYLOV, V.V., podpolkovnik, voyennyy shturman pervogo klassa

Navigators' calculations can be automated still more. Vest.
Vozd. Fl. no.5:82-83 My '61.   (MIRA 14:8)
                    (Navigation (Aeronautics))

KRYLOV, V.V.

VLADISLAVEV, V.S.

KRYLOV, V.V. (Kazan')

Deformation versor. Trudy KAI 45:85-92 '59.   (MIRA 14:1)
      (Vector analysis)   (Electricity)

BELOVA, M.B.; VASIL'YEV, V.G.; VLASOV, G.M.; GRYAZNOV, L.P.; DRABKIN,
I.Ye.; ZHEGALOV, Yu.V.; KARBIVNICHIY, I.N.; KLENOV, Ye.P.; KRY-
LOV, V.V.; TITOV, V.A.; ZARETSKAYA, A.I., vedushchiy red.; FE-
DOTOVA, I.G., tekhn. red.

[Geology and oil and gas potentials of Kamchatka] Geologicheskoe
stroenie i perspektivy neftegazonosnosti Kamchatki. Moskva, Gos.
nauchno-tekhn. izd-vo neft. i gorno-toplivnoi lit-ry, 1961. 343 p.
(MIRA 14:9)

(Kamchatka—Petroleum geology)
(Kamchatka—Gas, Natual—Geology)

SOV/98-58-11-9/15

AUTHORS: Sobolev, S.V. and Krylov, V.V., Engineers

TITLE: The Construction of a Prefabricated Reinforced-Concrete Spillway Dam (Sbornaya konstruktsiya zhelezobetonnoy vodoslivnoy plotiny). For Discussion Purposes (V poryadke obsuzhdeniya)

ABSTRACT: The use of prefabricated reinforced-concrete parts in the construction of hydroelectric power plants may considerably shorten the construction period. The authors developed the plan of construction of a spillway dam from such blocks of a simple but universal shape suited for all fundamental structures of a hydraulic system. According to the authors such construction will need less concrete, speed-

Card 1/2

The Construction of a Prefabricated Reinforced-Concrete Spillway Dam   SOV/98-58-11-9/15
For Discussion Purposes

> up, and simplify the building process, which will consist
> mainly of mechanized assembly of the structure. A detailed
> description of the proposed method is given. There are 3
> diagrams and 1 table.
>
> 1. Dams--Construction   2. Reinforced concrete--Applications

Card 2/2

KIGLOV, V. V. Cand Tech Sci — (diss) "Certain Questions on the

Theory of Dynamic Action of a Stream on Water-Fault Installations,"

Moscow, 1960, 28 pp, 180 copies (All-Union Sci-Res Institute of Water

Supply, Sewerage, Hydrotechnical Structures and Engineering Hydrogeology,

"VODGYeO", Academy of Construction and Architecture USSR) (KL, 46/60, 125)

KHYLOV, V.V., inzh.

Designing the profile of an arched dam overflow. Izv.vys.
ucheb.zav.; energ. 3 no.1:129-135 Ja '60.   (MIRA 13:1)

1. Vsesoyuznyy zaochnyy energeticheskiy institut. Predstavlena
knfedroy gidroenergetiki i gidravliki.
                    (Spillways)

KRYLOV, V.

Engineering and technical societies in the struggle for speeding
up technical progress. Rech. transp. 19 no. 2:46 F '60.

(MIRA 14:5)

1. Chlen prezidiuma Permskogo oblastnogo soveta nauchno-tekhnicheskikh
obshchestv.
(Inland water transportation—Technological innovations)

KRYLOV, V., inzh.; SOBOLEV, S., inzh.

Industrially sectional construction of navigational sluiceways.
Rech.transp. 19 no.5:36-38 My '60.   (MIRA 13:7)
    (Hydraulic engineering--Equipment and supplies)
    (Precast concrete construction)

KRYLOV, V.V., inzh.

Hydraulic calculation of energy dissipators. Gidr. i stroi. 30
no.5:40-44 My '60.   (MIRA 14:5)
                    (Spillways)

KRYLOV, V.V., inzh.

Hydraulic calculation of a spillway apron. Izv. vys. ucheb. zav.; energ. 4 no. 1:95-100 Ja '61. (MIRA 14:2)

1. Vsesoyuznyy zaochnyy energeticheskiy institut. Predstavlena kafedroy gidroenergetiki.
(Spillways)

Carding Machines

Simplified cotton-carding machine VChU-1., Tekst. prom., 12, No. 3., 1952.

9. Monthly List of Russian Accessions, Library of Congress, __April__ 195Z, Uncl.

2

KRYLOV, V.V.

Distribution of strains and hidden elongation in roves. Tekst.prom.
14 no.7:27-30 Jl '54.   (MIRA 7:8)
    (Cotton spinning)

KRYLOV, V. V.:

KRYLOV, V. V.: "The effect on the process of stretching and on the uniformity of coarse linen of the stretching instrument and the twisting-winding mechanism of lines machines." Min Higher Education LSSR. Moscow Textile Inst. Moscow, 1956. (DISSERTATION FOR THE DEGREE OF CANDIDATE IN TECHNICAL SCIENCE).

So.: Knizhnaya Letopis', Moscow No. 15, 1956

KRYLOV, V.V., inzhener.

New ChVP-600 cotten wool carding machine. Tekst.prom. 16
no.1:19-21 Ja '56.   (MIRA 9:4)
            (Carding machines)

KRYLOV, V.V., kandidat tekhnicheskikh nauk.

Strains and unevenness of sliver in drawing the roving. Tekst.
prom. 17 no.6:30-32 Je '57.   (MIRA 10:7)
              (Spinning)   (Yarn--Testing)

ALEKSANDROV, F.T., starshiy nauchnyy sotrudnik; KRYLOV, V.V., kand.tekhn.nauk

Cap-type carding machine with a production capacity of 15 kg. per
hour. Tekst. prom. 18 no.6:17-19 Je '58.   (MIRA 11:7)
                    (Carding machines)

KRYLOV, V.V.,kand.tekhn.nauk; KOROL'KOV, N.V.

Trends in the improvement of carding machines. Tekst.prom. 20
no.10:77-80 O'60.   (MIRA 13:11)
                    (Carding machines)

KRYLOV, V.V.

Some theoretical and experimental data on the development of high-speed carding machines for cotton. Izv. vys. uchab. zav.: tekh. tekst. prom. no.3:49-57 '62.

(MIRA 17:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut tekstil'noy i legkoy promyshlennosti.

English summary:

The author attempts to formulate the fundamental equations of generalized plane stress theory of elasticity for finite

tions are given.   *H. A. Lamaerier (Amsterdam)*

KRYLOV, V.V.

Plane problem in the theory of elasticity for arbitrary variables.
Trudy KAI 21:3-78 '48.   (MIRA 10:6)

(Elasticity)

$\Lambda \, \iota \, \gamma \quad \jmath \theta \, \mathcal{U}, \quad \mathcal{U}. \mathcal{U}.$

 124-1957-10-11859

AUTHOR: Krylov, V. V.

TITLE: Some Problems in the General Investigation of the Equilibrium
            of an Elastic Body (Nekotoryye voprosy obshchego issledovaniya
            ravnovesiya uprogogo tela)

ABSTRACT: The Author's objective is a general investigation of the
            stressed and deformed state of an isotropic elastic body and to
            establish the equations of a theory of elasticity without recourse
            to any assumptions relative to the smallness of the displacements
            or their derivatives. The work contains seven chapters: 1) the
            deformation of a solid medium; 2) analysis of the stressed state;
            3) basic relationships between stress and deformation tensors:
            4) integration of equations of equilibrium; 5) pure deformation
            at a point; 6) the plane problem; 7) to the torsion of a round
            shaft. The basic outline of the establishment of a non-linear
            elastic theory, as proposed in the paper, narrows down to the
            following terms: a) a symmetrical deformation tensor must be

Card 1/2

Some Problems in the General Investigation of the Equilibrium (cont.)

determined by nine components: "The additive combination of the turning angles of two linear elements (shear) is not necessary", and "The work owes its development to the view that the enlistment of each component (out of which the expression for the shear is set up) as an independent component of the deformation tensor simplifies the investigation"; b) the experimental relationship between stresses and deformations is taken in the form of Hooke's law, that is, as a linear relationship between the relative elongations along the principal directions and the principal normal stresses; c) in all examinations, the deformation versor is applied as an independent tensor. To find it, supplementary equations are required, and "it appears plausible that the basic equations of the theory of elasticity usually employed are not sufficient for the exact determination of the stress-strain state of an elastic body." However, "the determination of the deformation versor is left open in the paper."

A. L. Lur'ye

Card 2/2

KRYLOV, V. Y. and BEDUNKOVICH, A. G.

Specialties of the Construction of Jet Aircraft, 1948.

124-1957-2-1622

Translation from: Referativnyy zhurnal, Mekhanika, 1957, Nr 2, p 27 (USSR)

AUTHOR: Krylov, V. Ya.

TITLE: The Lateral Stability of a Sweptback Wing (Poperechnaya ustoychivost' strelovidnogo kryla)

PERIODICAL: Tr. Leningr. in-ta aviats. priborostroyeniya, 1953, Nr 4, pp 17-25

ABSTRACT: The paper affords a quantitative evaluation of the lateral stability of a sweptback wing without any reduction in area in comparison with a straight wing. To provide references for the evaluation, the Author introduces the difference between the tangents of the angles of attack of the right and left semi-wings due to the sideslip angle φ of the craft and the given fore-and-aft sweep angle χ and the transverse dihedral angle β. The abovementioned difference is determined from purely geometrical considerations. The aerodynamic effects resulting from the sideslip are not considered in this paper (such as the spanwise redistribution of the circulation), because the Author believes that these effects in the first approximation are the same on both the sweptback and the non-swept wings
Card 1/2   and, therefore, can be disregarded in the comparative evaluation.

124-1957-2-1622

The Lateral Stability of a Sweptback Wing

The relationships obtained indicate that the lateral stability of the wing increases with an increase in the angle χ (sweepback).Therefore, in order to maintain a degree of lateral stability equal to that of the straight wing, it will be necessary to decrease the angle β (dihedral). Upon arriving at the final formulas, the A. makes a wholly superfluous assumption regarding the equality of the angles φ and β , which, in physical reality, are independent quantities. Also, on evaluating the term with χ , the Author, considering the angle β to be variable, assumes the angle φ to be constant, which contradicts the preceding assumption. As a result thereof the fundamental nomogram (Fig. 7 in the article) is derived from two mutually exclusive assumptions, which leads to numerical errors and makes the graph unsuitable for practical use. The elimination from the design formulas of the assumption $\varphi = \beta$ is a fundamental necessity to maintain the validity of the qualitative conclusions derived by the Author.

B.V.Raushenbakh

1. Swept-back wings--Stability (Lateral)

Card 2/2

Name   : KRYLOV, V. Ya.

Remarks   : Engineer G. Molyukov writes in a review of a manual on aircraft con-
              struction that O. N. Rozanov, A. S. Bedunkevich, V. Ya. Krylov,
              Ya. G. Panovko and G. G. Rostovtsev are the authors of a book
              entitled "Special Features of Jet Aircraft Construction".

Source   : P: Vestnik Vozdushnogo Flota, No. 3, March 1954, pp. 80-82

KRYLOV, V.Ya., kandidat tekhnicheskikh nauk; MEL'NIKOV, A.P.,doktor
tekhnicheskikh nauk, redaktor.

[Development of helicopter construction in the U.S.S.R.]
Razvitie vertoletostroeniia v SSSR. Leningrad, Vses. ob-vo
po rasprostraneniiu polit. i nauchn.znanii, Leningradskoe
otd-nie 1955. 42 p. [Microfilm]   (MLRA 9:1)
      (Helicopters)

KRYLOV, V Ya

AUTHOR: Not given
TITLE: New Books, (Novyye knigi, Russian)
PERIODICAL: Radiotekhnika, 1957, Vol 12, Nr 7, pp 81-81 (U.S.S.R.)

ABSTRACT: V.A.KOTEL'NIKOV: "Theory of the Potential Noise Stability", pub-
               lished by Gosenergoizdat, 1956, 151 pages, price 6.15 roubles.
               This is a monograph and the material contained can be used for
               the analysis of modulation-radio reception methods.
               New methods worked out in the field of radio communication and
               broadcasting. Informative reference work "Technology of Tele-
               communication", published by Svyaz'izdat. 1957. 71 pages.
               price 2.20 roubles (Ministry for Post Office and Telecommuni-
               cation in the U.S.S.R., technical administration). Description
               of the latest developments, as e.g. highfrequency apparatus for
               radio relay lines of the "Strela" type, the termistor measuring
               instrument of highfrequency power, the device for measuring the
               relative level of transition- and fluctuation noise in multi-
               channel radio relay lines, the impulse-oscillograph IO-52, the
               latest microphone types, the multifrequency generator for sound
               telegraphy, the strong radiation tetrode, the apparatus with
               crystal triodes for determining defective parts in subterranean
               lines with non-metallic casing.

Card 1/2

108-7-13/13

New Books.

V.YA.KRYLOV:"Artificial Earth Satellite", published by "Sovets-koye radio", 1957, 76 pages, price 2.25 roubles. A monograph.

A.K.VARDENBURG: "Plastic Masses in Electrotechnical Industry", second edition, revised and completed. Published by Gosenergo-izdat, 1957, 231 pages, price 8.- roubles.

V.L.TYURIN, V.N.LISTOV, A.V.VYSOTSKIY: "Telecommunication", second edition, revised and completed. Published by "Transzhel-dorizdat", 1957, 411 pages, price 13,20 roubles. Theoretical bases. Textbook for Railway Schools.

ASSOCIATION: Not given
PRESENTED BY:
SUBMITTED:
AVAILABLE: Library of Congress

Card 2/2

KRYLOV, V.Y.

SUBJECT	USSR/MATHEMATICS/Theory of approximations CARD 1/2 PG - 352
AUTHOR	KRYLOV W.J.
TITLE	The convergence of the algebraic interpolation in terms of the roots of a Čebyšev polynomial for absolutely continuous functions and for functions of bounded variation.
PERIODICAL	Doklady Akad. Nauk $\underline{107}$, 362-365 (1956) reviewed 10/1956

Let $f(x)$ be defined on $[-1,+1]$. Let the interpolation knots be the roots $x_k^{(n)} = \cos \frac{2k-1}{2n} \pi$ $(k=1,2,\dots,n)$ of the polynomial $T_n(x) = \cos(n \text{ arc } \cos x)$. The Lagrange polynomial which interpolates $f(x)$ with respect to its values in $x_k^{(n)}$ be

$$L_n(x) = \sum_{k=1}^{n} l_{n,k}(x) f(x_k^{(n)}), \qquad l_{n,k}(x) = T_n(x) : (x - x_k^{(n)}) T_n'(x_k^{(n)}).$$

Theorem 1: If $f(x)$ is absolutely continuous on $[-1,+1]$, then on $[-1,+1]$, $L_n(x)$ converges to $f(x)$ uniformly with respect to x if $n \longrightarrow \infty$.

For the proof the author uses the fact that for the uniform convergence on $[-1,+1]$ for absolutely continuous functions it is necessary and sufficient that the absolute values of the partial sums $\sum_{k=j}^{n} l_{n,k}(x)$ possess an upper

bound A. The existence of A is given by the consideration of an integral

CARD 2/2   PG - 352

representation, namely

$$\sum_{k=j}^{n} l_{n,k}(x) = (2\pi i)^{-1} \int_{\Gamma_j} \left[1 - \frac{T_n(x)}{T_n(z)} \right] \frac{dz}{z-x} \, ,$$

where Γ_j is a closed curve, where the knots $x_k^{(n)}$ (k=1,...,j-1) lie outside of Γ_j and the knots $x_k^{(n)}$ (k=j,j+1,...n) lie inside of T_j. Theorem 2: If $f(x)$ is of bounded variation on $[-1,+1]$, then $L_n(x)$ converges to $f(x)$ as $n \longrightarrow \infty$ in all points of continuity of $f(x)$.

INSTITUTION: Ždanow University, Leningrad.

KRYLOV, V.Yu.

Some properties of a distribution corresponding to the equation $\frac{\partial u}{\partial t} = (-1)^{q+1} \frac{\partial^{2q} u}{\partial x^{2q}}$. Dokl.AN SSSR 132 no.6:1254-1257 Je '60.   (MIRA 13:6)
(Distribution (Probability theory))

01389

16.4140

AUTHOR: Krylov, V.Yu.

TITLE: Some Properties of the Distribution Corresponding to the Equation

$$\frac{\partial u}{\partial t} = (-1)^{q+1} \frac{\partial^{2q} u}{\partial x^{2q}}$$

TEXT: I.M. Gel'fand (Ref. 3) incited to investigate the distributions connected with several differential equations and being analogous to the measure of Wiener. In the present paper the author considers the distribution in the space $C[0,T]$ of functions $x(t)$ continuous on $[0,T]$ which corresponds to the equation

(1) $$\frac{\partial u}{\partial t} = (-1)^{q+1} \frac{\partial^{2q} u}{\partial x^{2q}} \quad .$$

As it is usual the distribution is defined on cylindrical subsets of the $C[0,T]$. It is proved that for bounded smooth functions $V(x)$ there exists the mean with respect to the distribution of the functional

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Some Properties of the Distribution Corresponding   S/020/60/132/06/08/068
C111/C222

to the Equation $\frac{\partial u}{\partial t} = (-1)^{q+1} \frac{\partial^{2q} u}{\partial x^{2q}}$

$\exp \left\{ - \int_0^T V \left[x(t) \right] dt \right\}$ and that it is a solution of

(2) $\frac{\partial u}{\partial t} = (-1)^{q+1} \frac{\partial^{2q} u}{\partial x^{2q}} - V(x)u$.

Therewith also the existence of the distribution or the generalized measure P_{2q} is proved in the whole $C [0,T]$. It is shown that the complete variation of P_{2q} , $q > 1$ is infinite on $C \lceil 0,T \rceil$. The measure P_{2q} is concentrated on a compact set in as much as its variation outside of this compact can be made arbitrarily small. A well-known result of Wiener is generalized :
Theorem 4 : The complete measure $F(t_1)$ of the set of those trajectories $x(t) \in C [0,T]$ which are positive on $\lceil 0,T \rceil$ at least during the time t_1 is given by
Card 2/3

Some Properties of the Distribution Corresponding   S/020/60/132/06/08/068
to the Equation $\frac{\partial u}{\partial t} = (-1)^{q+1} \frac{\partial^{2q} u}{\partial x^{2q}}$ C111/C222

81389

(6) $$F(t_1) = \frac{2}{\pi} \, \arcsin \sqrt{\frac{t_1}{T}}$$

for every $q \geq 1$.

The author mentions L.V. Kobelev ; he thanks his scientific leader I.M.
Gel'fand, Corresponding Member of the AS USSR, and I.I. Pyatelskiy-Shapiro
for advices.

There are 5 references : 2 Soviet, 2 English and 1 American.

PRESENTED: February 27, 1960, by A.N. Kolmogorov, Academician
SUBMITTED: February 25, 1960

Card 3/3

KRYLOV, V. Yu.

Cand Phys-Math Sci - (diss) "Non-positive distributions and
equations with partial derivatives." Moscow, 1961. 5 pp;
(Academy of Sciences USSR, Mathematics Inst imeni V. A. Stek-
lov); 150 copies; price not given; bibliography on p 5 (19 en-
tries); (KL, 7-61 sup, 219)

$/L.C100$

AUTHOR: Krylov, V.Yu.

TITLE: A limit theorem

PERIODICAL: Akademiya nauk SSSR. Doklady, v.139, no.1, 1961, 20-23

TEXT: The following theorems are proved:

Theorem 1: Let ξ_1, ξ_2,..., ξ_k,... be a sequence of mutually independent random variables given by the generally not positive probability densities $p_k(x)$ (k=1,2,...) satisfying the following conditions:

1) For every k (k=1,2,...) it holds

$$\int p_k(x)dx = 1, \quad \int x p_k(x)dx = 0, \dots \quad \int x^{2q-1} p_k(x)dx = 0,$$

$$\int x^{2q} pk(x)dx = (-1)^{q+1} b_k^{2q}.$$

2) There exists a constant C so that for every n it holds:

$$\sum_{k=1}^{n} \int x^{2q} |p_k(x)| dx = C \sum_{k=1}^{n} \left| \int x^{2q} p_k(x)dx \right|.$$

Card 1/3

A limit theorem

25470

3) For every $\lambda > 0$ it holds

$$\lim_{n \to \infty} \frac{1}{B_n^{2q}} \sum_{k=1}^{n} \int_{|x| > \lambda B_n} x^{2q} p_k(x) \, dx = 0,$$

where $B_n^{2q} = \sum_{k=1}^{n} b_n^{2q}$.

4) It holds

$$\lim_{\varepsilon \to 0} \max_{\substack{1 \leq k \leq n \\ 1 \leq n < \infty}} \frac{1}{B_n^{2q}} \int_{|x| \leq \varepsilon B_n} x^{2q} |p_k(x)| \, dx = 0.$$

If then $P_n(x)$ is the probability density of the normalized sum

$\zeta_n = \frac{1}{b_n} \sum_{k=1}^{n} \xi_k$ then it exists

$$P(x) = \lim_{n \to \infty} P_n(x) = \frac{1}{2\pi} \int e^{-t^{2q}/(2q)! + itx} \, dt.$$

Card 2/3

A limit theorem   25070   S/020/61/139/001/002/018
                                                 C111/C222

The limit value is understood in the sense of the weak convergence
over the space Z.
On Z of. (Ref.4: I.M.Gel'fand, G.Ye.Shilov, Prostranstva obobshchennykh
funktsiy [Spaces of generalized functions], M., 1958).
Theorem 2: Let $p_k(x)$ (k=1,2,...,) satisfy the conditions 1)-4) of theorem

1 and besides the condition

5) $|f_{nk}(t)| \leq (1 + \frac{A}{n})(\frac{n}{n+t})^{\alpha}$ (k=1,...,n) for all k,t ($-\infty < t < \infty$) and
    every $\alpha > 0$.
Then $P_n(x) \to P(x)$ ($n \to \infty$) in the mean.

Here $f_{nk}(t)$ denotes the characteristic function of $\xi_{nk} = \frac{1}{B_n} \xi_k$ ($1 \leq k \leq n$;
n=1,2,...).
The author thanks I.M.Gel'fand and M.A.Yevgrafov for attention to the
paper. There are 6 Soviet-bloc references.

PRESENTED: December 29, 1960, by M.V.Keldysh, Academician

SUBMITTED: December 27, 1960

Card 3/3

GODUNOV, Sergey Konstantinovich; RYABEN'KIY, Viktor Solomonovich.
Prinimali uchastiye: BAKHVALOV, N.S.; KRYLOV, V.Yu.;
BIRYUK, G.I., red.; PLAKSH, L.Yu., tekhn. red.

[Introduction to the theory of different systems]Vvedenie v
teoriiu raznostnykh skhem. Moskva, Fizmatgiz, 1962. 340 p.
                                        (MIRA 16:1)
     (Difference equations) (Operators (Mathematics))

S/020/63/149/002/007/028
B112/B180

AUTHORS: Tsetlin, M. L., Krylov, V. Yu.

TITLE: Examples of games played by robots

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 149, no. 2, 1963, 284-287

TEXT: The behavior of players in a game is considered, the conditions of
which are not known to the players. It is assumed that the game is
repeated a certain number of times. Simplest examples for playing a zero-
sum game with linear strategy are considered. For this case, the
mathematical expectation value is calculated and shown to be similar to
that of the von Neumann game.

PRESENTED: October 16, 1962, by M. V. Kel'dysh, Academician

SUBMITTED: October 4, 1962

Card 1/1

L 18406-63   EWT(d)/FCC(w)/BDS   AFFTC/ASD/ESD-3/RADC/IJP(C)

ABSTRACT: Two finite automata without a priori information about the game are selecting their strategies in the course of playing the game. Hands (games) are repeated many times, and each of them means a unit loss or gain for a given automaton. Thus, the strategy of each automaton is based only on his last score. Such a type of game is described by the Markov's finite chain; final probabilities of winning are determined for the ergodic-game class. Further, a two-automata zero-sum game is defined. The automaton plays with an adversary who has selected a mixed strategy. A linear-tactics automaton can maximize its chances

Card 1/2

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ACCESSION NR: AP3003744

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to win; if his opponent uses the optimum strategy, it can still get the Neumann's pure value. It is assumed that both automata have expedient behavior. Finally, a zero-sum game is considered between two automata having an asymptotically optimum behavior in steady-state random media. Some experimentation with a computer in connection with the latter type of game is mentioned. Orig. art. has: 3 figures, 49 formulas, and 1 table.

ASSOCIATION: none

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SUB CODE: IE   NO REF SOV: 006   OTHER: 004

Card 2/2

KRYLOV, V.Yu. (Moskva)

An automation, asymptotically optimum in a random medium.
Avtom. i telem. 24 no.9:1226-1228 S '63.   (MIRA 16:9)
        (Automation) (Automatic control)

TSETLIN, M.L.; KRYLOV, V.Yu.

Examples of games played by automata. Dokl. AN SSSR 149 no.2:
284-287 Mr '63.

(MIRA 16:3)

1. Predstavleno akademikom M.V.Keldyshem.
(Games of strategy (Mathematics))